

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP03/02834

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G11B20/00 G06K19/07

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 016, no. 386 (P-1404), 18 August 1992 (1992-08-18) -& JP 04 124788 A (FUJITSU LTD), 24 April 1992 (1992-04-24) abstract	1, 11, 15, 16
A	--- PATENT ABSTRACTS OF JAPAN vol. 016, no. 463 (P-1428), 25 September 1992 (1992-09-25) -& JP 04 165583 A (YAMATAKE HONEYWELL CO LTD), 11 June 1992 (1992-06-11) abstract --- -/--	1, 11, 15, 16

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

29 September 2003

Date of mailing of the international search report

09/10/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Sucher, R

INTERNATIONAL SEARCH REPORT

Internat. Application No.

PCT/03/02834

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 499 017 A (BEIGEL MICHAEL L) 12 March 1996 (1996-03-12) abstract column 1, line 5 -column 2, line 44 column 6, line 39 - line 63 -----	1,11,15, 16
A	EP 0 809 245 A (TEXAS INSTRUMENTS INC) 26 November 1997 (1997-11-26) the whole document -----	1,11,15, 16
A	EP 0 849 734 A (TEXAS INSTRUMENTS INC) 24 June 1998 (1998-06-24) the whole document -----	1,11,15, 16

INTERNATIONAL SEARCH REPORT

Internat. Application No

PCT/JP03/02834

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 04124788	A	24-04-1992	NONE	
JP 04165583	A	11-06-1992	NONE	
US 5499017	A	12-03-1996	AT 220816 T AU 665797 B2 DE 69232683 D1 DE 69232683 T2 DK 615645 T3 EP 0615645 A1 JP 7504771 T	15-08-2002 18-01-1996 22-08-2002 27-03-2003 11-11-2002 21-09-1994 25-05-1995
EP 0809245	A	26-11-1997	DE 69711755 D1 DE 69711755 T2 EP 0809245 A2 JP 10075198 A US 5905798 A	16-05-2002 14-11-2002 26-11-1997 17-03-1998 18-05-1999
EP 0849734	A	24-06-1998	DE 69720938 D1 EP 0849734 A2 JP 10228727 A US 6198875 B1	22-05-2003 24-06-1998 25-08-1998 06-03-2001